



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,209	04/22/2004	Chang Nam Kim	K-0632	5528
34610	7590	01/10/2008		
KED & ASSOCIATES, LLP			EXAMINER	
P.O. Box 221200			TADESSE, YEWEBDAR T	
Chantilly, VA 20153-1200			ART UNIT	PAPER NUMBER
			1792	
			MAIL DATE	DELIVERY MODE
			01/10/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/829,209	KIM, CHANG NAM	
	Examiner	Art Unit	
	Yewebdar T. Tadesse	1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11,20,21,23-26,29-34,37 and 40-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11,20,21,23-26,29-34,37,40-43 and 45 is/are rejected.
- 7) ☒ Claim(s) 44 and 46 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Objections

1. Claim 43 is objected to because of the following informalities: in claim 43, line 2 the word "along" is mistyped as "alont". Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 11, 37 and 43 are rejected under 35 U.S.C. 102(a) as being anticipated by Kim (US 2003/0011299 A1).

As to claim 11, Kim discloses (see Figs 3A-3D and 4) a mask (10) for use during deposition of a luminescent layer of an organic electroluminescent device, the mask comprising: a plurality of holes (see Fig 4) aligned uniformly running in parallel to each other along an axis of the mask, wherein an entire inner circumferential edge of each of the plurality of holes is formed by first and second angled surfaces; and a plurality of bridges (60-1) located between the plurality of holes (see Figs 5A-5C angled surface at the edges of inner surface), and wherein each of the plurality of holes has a shape and a size corresponding to a pixel region of the organic electroluminescent device, wherein each of the plurality of holes is configured to block an adjacent sub-pixel area during

Art Unit: 1792

deposition of an organic electro-luminescent material during fabrication of an organic electroluminescent device, and a plurality of bridges(60-1), wherein one of the plurality of bridges extends between respective ends of adjacent holes of the plurality of holes, wherein a thickness of the plurality of bridges (60-1) is less than a thickness of the mask in areas of the mask (6) having no angled surface portions.

Regarding claim 37, in Kim shapes of the slot is rectangular (see Fig 4).

As to claim 43, in Kim (see Figs 4, 5A-5C) the first and second angled surfaces each extends uniformly along the entire circumferential edge of each hole.

4. Claims 20-21, 23-26, 29-34 and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Im et al (US 2002/0067117A 1).

As to claim 20, in Im et al a shape of the inner circumferential edge defined by the first and the second angled surfaces is symmetric (see Fig 10 A),

With respect to claim 21, the opposing sides of each of the strip slots are perpendicular (see Fig 1-2) to a side of a corresponding side of the strip-type slot adjacent to a bridge of the plurality of bridges.

As to claim 23-24, a surface area of first and second upper angled surfaces is the same as (or different from) a surface area of the first or the second angled surface (see Fig 10A for same surface area of angled surface and 9A-9D for different surface area angled surface).

As to claim 25-26, a width and a height of the first and second angled surfaces is the same as (or different from) a width and a height of the first or the second angled

Art Unit: 1792

surface (see Fig 10A for same width and height of angled surface and 9A-9D for different width and height of angled surface).

With respect to claim 29, Im et al discloses (see Figs 1-4 and 9-10) a mask capable of being used during deposition of a luminescent layer of an organic electroluminescent device, the mask comprising a plurality of strip-type slots (13) aligned uniformly and in parallel to each other along an axis, wherein an alignment of a first row of the plurality of strip-type slots is different from an alignment of a second row of the plurality of strip-type slots (see Figs 1-2), wherein the plurality of strip-type slots are arranged so as to block adjacent deposition areas during deposition of material during fabrication of an organic electroluminescent device; and a first angled surface and a second angled surface that defines an inner circumferential edge of the plurality of strip-type slots (see Figs 9-10).

With respect to claims 30-31, in Im et al the axis is an x-axis and a y-axis (see Fig 1).

As to claims 32-33, in Im et al (see Fig 1) the first row of strip type slots is adjacent to the second row strip-type slots, such that the strip-type slots positioned in the first row are parallel to the strip-type slots in the second row, and the strip-type slots positioned in the first row are staggered relative to the strip-type slots (in similar fashion as disclosed by applicants' Figs 7A and 7B) positioned in the second row and an alignment of the slots is the same for alternating rows (see Fig 1).

Regarding claim 34, in Im et al shapes of the slot is rectangular (see Fig 1).

As to claim 40, in Im et al the areas of the mask positioned between adjacent holes comprise bridges extending between the adjacent holes (see Fig 2).

As to claim 45, in Im et al (see Figs 9-10) a width of each of the plurality of holes is greater at its upper and lower circumferential edges than a corresponding width of each of the plurality of holes at a portion where the first and second angled surface meet.

5. Claims 11, 20-22, 24, 26, 29-34, 37, 40, 41, 42 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamamoto (US 5,079,477).

As to claim 11, Yamamoto discloses (see Figs 1-2) a mask capable of being used during deposition of a luminescent layer of an organic electroluminescent device, the mask comprising: a plurality of holes (3A) aligned uniformly and in parallel to each other along an axis of the mask, wherein an entire inner circumferential edge of the plurality of holes (13) is formed by first and second angled surfaces (see Figs 1-4 and 6a-6d), and wherein each of the holes has a shape and a size corresponding to a pixel region of the organic electroluminescent device, wherein each of the plurality of holes is configured to block an adjacent sub-pixel area during deposition of an organic electroluminescent material during fabrication of an organic electroluminescent device, and a plurality of bridges, wherein one of the plurality of bridges extends between respective ends of adjacent holes of the plurality of holes, wherein a thickness of each of the plurality of bridges is less than a thickness of the mask in areas of the mask having no angled surface portions (see column 4, lines 12-15).

As to claim 20, in Yamamoto a shape of the inner circumferential edge defined by the first and the second angled surfaces is symmetric (see Figs 5-6),

With respect to claim 21, in Yamamoto the opposing sides of each of the strip slots are perpendicular (see Fig 1-2) to a side of a corresponding side of the strip-type slot adjacent to a bridge of the plurality of bridges.

As to claim 24, in Yamamoto a surface area of first and second upper angled surfaces is the different from a surface area of the first or the second upper angled surface (see Figs 5-6).

As to claim 26, in Yamamoto a width and a height of the first and second upper angled surfaces is the same as different from a width and a height of the first or the second upper angled surface (see Figs 5-6).

With respect to claim 29, Yamamoto discloses (see Figs 1-6) a mask capable of used during deposition of a luminescent layer of an organic electroluminescent device, the mask comprising a plurality of strip-type slots (3a) aligned uniformly and in parallel to each other along an axis, wherein an alignment of a first row of the plurality of strip-type slots is different from an alignment of a second row of the plurality of strip-type slots (see Fig 2), wherein the plurality of strip-type slots are arranged so as to block adjacent deposition areas during deposition of material during fabrication of an organic electroluminescent device; and a first angled surface and a second angled surface that defines an inner circumferential edge of the plurality of strip-type slots,

With respect to claims 30-31, in Yamamoto the axis is an x-axis and a y-axis.

Art Unit: 1792

As to claims 32-33, in Yamamoto (see Fig 1) the first row of strip type slots is adjacent to the second row strip-type slots, such that the strip-type slots positioned in the first row are parallel to the strip-type slots in the second row, and the strip-type slots positioned in the first row are staggered relative to the strip-type slots (in similar fashion as disclosed by applicants' Figs 7A and 7B) positioned in the second row and an alignment of the slots is the same for alternating rows (see Fig 1).

Regarding claims 34 and 37, in Yamamoto shapes of the slot is oval.

As to claim 40, in Yamamoto the areas of the mask positioned between adjacent holes comprise bridges extending between the adjacent holes (see Fig 1).

With respect to claim 41, in Yamamoto each slot or hole has an angled surface formed along its full inner perimeter surface (see Fig 1).

As to claims 42 and 45, in Yamamoto (see Fig 5A) a width of each of the plurality of holes is greater at its upper and lower circumferential edges than a corresponding width of each of the plurality of holes at a portion where the first and second angled surface meet.

Allowable Subject Matter

6. Claims 44 and 46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: in Kim the first and second angled surfaces each extends uniformly along the entire inner circumferential edge of each hole. Yet, Kim does not disclose an alignment

of a first row of the plurality of slots which is different from an alignment of a second row of the plurality of strip-type slots (see Fig 4). In Yamamoto the first and second angled surfaces do not extend uniformly along the entire inner circumferential edge of each hole. In fact, Yamamoto teaches non-uniform surfaces of slot holes (see column 4, lines 49-55). With respect to claim 46, prior art of record does not disclose or suggest a mask for use during deposition of a luminescent layer of an organic el device comprising, among others (as claimed in claim 29), wherein the first angled surface extends uniformly along an entire upper inner circumferential edge of each of the plurality of strip-type slots and the second angled surfaces extends uniformly along the entire lower inner circumferential edge of each of the plurality of strip-type slots. With respect to claim 44, prior art of record does not disclose or suggest a mask for use during deposition of a luminescent layer of an organic el device comprising, among others (as claimed in claim 29) wherein the first angled surface extends from an upper surface portion of the mask that defines its respective hole towards an interior portion of its respective hole, and the second angled surface extends from a distal end of the first angled surface to a lower surface portion of the mask that defines its respective hole.

Response to Arguments

8. Applicant's arguments filed 10/18/2007 have been fully considered but they are not persuasive. Examiner withdraws rejection of claim 11 in view of Im et al because in Im et al the entire inner circumferential edge of each of the plurality of holes is not formed by first and second angled surfaces (see Figs 2-4). However, as described

Art Unit: 1792

above Im et al meet applicants' claims 20-21, 23-26, 29-34, 37 and 40. With respect to 102(a) in view of reference to Kim, applicants contend that the reference is not a proper reference for 102(a). Examiner respectfully disagrees because reference to Kim is published on Jan 16, 2003 before the applicants' invention having effective filing dated of May 6, 2003. It is noted that only the rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. For more information, see MPEP 706-02. Applicants further argue that the mask disclosed by Im et al and Yamamoto do not disclose a mask including first and second angled surfaces as claimed in claims 11 and 29. Examiner respectfully disagrees because the mask disclosed by Im et al and Yamamoto do include first and second angled surfaces (see Figs 9-10 and 5-6 respectively) in similar manner as taught by applicants' Fig 6B. Kim also shows plurality of holes formed by first and second angled surfaces. Yamamoto discloses first and second angled surfaces formed along an entire inner circumferential edge of the each of the plurality of holes (see Figs 4-6), although the entire edge of the holes are not uniform.

For at least the reasons described above examiner applies rejection to the amended claims in view of Kim, Im et al and Yamamoto.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

Art Unit: 1792

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yewebdar T. Tadesse whose telephone number is (571) 272-1238. The examiner can normally be reached on Monday-Friday 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on (571) 272-1465. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1792

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free)? If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



YTT